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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,860	09/22/2003	William C. Allison	1795A1	4326

7590 07/01/2004

PPG Industries, Inc.
Law-Intellectual Property 39S
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EXAMINER

NGUYEN, DUNG V

ART UNIT PAPER NUMBER

3723

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/664,860	ALLISON ET AL.	
	Examiner	Art Unit	
	Dung V Nguyen	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-69 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/19/03 & 5/7/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 24-33, 36, 39, 40, 66 and 67 are rejected under 35 U.S.C. 102(e) as being anticipated by Swisher et al (USPN 6,477,926).

4. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

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the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

5. Swisher et al discloses a polishing pad comprising a sublayer 39, a middle layer 51, a top layer 33, wherein the top layer 33 is at least partially connected to the middle layer 51, the middle layer 51 is at least partially connected to the sublayer 39, wherein the top layer 33 has porosity of at least two percent by volume based on total volume of the top layer 33, wherein the top layer 33 has a porosity of 50% or less by volume, wherein the top layer 33 is selected from particulate polymer and crosslinked polymer binder, wherein the top layer 33 has a thickness of at least 0.5 mm (0.019 in), wherein the top layer 33 has a thickness of 5 mm (0.196 in) or less, wherein the top layer 33 comprises grooves or patterns in a polishing surface, wherein the middle layer 51 is selected from polyolefins, polyesters or polyethylene, wherein the sublayer 39 is selected from thermoplastic elastomer, wherein the sublayer 39, middle layer 51, top layer 33 are at least partially connected by an adhesive material 54 and 57, wherein the adhesive layer is selected from contact adhesives, thermoplastic adhesives, curable adhesives or thermosetting adhesives. Swisher et al also discloses a method of preparing a polishing pad 9 comprising at least partially connecting a top layer 33 to a middle layer 51, middle layer 51 to a sublayer 39, wherein the top layer 33 has porosity at least two percent by volume based on total volume of the top layer, wherein the top, middle and sub layers are connected by an adhesive material 54 (note Fig. 2, abstract, col. 3, line 9 to col. 19, line 8).

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6. Claims 1-10, 13, 16-18, 21, 23, 41, 44, 45, 47-55, 58-65, 68 and 69 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Swisher et al (USPN 6,477,926). Swisher et al discloses a polishing pad as described above and inherently discloses that the top layer 33 absorbs at least two percent by weight of polishing slurry based on total weight of the top layer 33, the top layer 33 has a percent volume compressibility greater than the middle layer 51, the sublayer 39 is softer than the top layer 33. Swisher et al discloses a polishing pad comprising a sublayer, middle layer and a top layer having the same material as the claimed polishing pad, therefore, it inherently discloses the property or characteristic of the claim invention. See MPEP 2112.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 11, 12, 14, 15, 19, 20, 22, 34, 45, 37, 38, 42, 43, 46, 56, 57, 59 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swisher et al (USPN 6,477,926). Swisher et al discloses the claimed invention as described above, however, Swisher et al does not disclose a middle layer has a thickness of at least 0.0005 inches, 0.0030 inches or less, a sublayer has a thickness of at least 0.020 inches, 0.100 inches or less, a sublayer has percent volume compressibility less than 20% when a load of 20 psi is applied, a top layer has a percent volume compressibility of at least 0.3%, 3% or

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less when a load of 20 psi is applied. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a middle layer has a thickness of at least 0.0005 inches, 0.0030 inches or less, a sublayer has a thickness of at least 0.020 inches, 0.100 inches or less, a sublayer has percent volume compressibility less than 20% when a load of 20 psi is applied, a top layer has a percent volume compressibility of at least 0.3%, 3% or less when a load of 20 psi is applied, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Breivogel et al, Fujita et al, Masumura et al, James et al, Scott et al and Hsu et al are cited to show a polishing pad having multiple layers.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung V Nguyen whose telephone number is 703-305-0036. The examiner can normally be reached on M-F, 6:30-3:00.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J Hail can be reached on 703-308-2687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DVN
June 22, 2004



DUNG VAN NGUYEN
PRIMARY EXAMINER